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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,874	12/03/2004	Heng Cai	IR 6844-00	6804

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EXAMINER

MOORE, MARGARET G

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 02/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/516,874	Applicant(s) CAI ET AL.	
	Examiner Margaret G. Moore	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 to 19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 to 19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 1712

1. Initially the Examiner would like to note that the “different polyamide material” as found in claim 1 can be a silicon modified polyamide; it simply cannot be the same as the first silicon modified polyamide required by claim 1. In addition please note that the language “useful in oral care products” is a future intended use clause that does not lend any patentable weight to the claimed material.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Barr et al.

Barr et al. teach siloxane based polyamides that meet Formula A in claim 6. See Formula A on col. 4 in Barr et al. These siloxanes are used to thicken silicone fluid. In Barr et al. see column 12, lines 28 and on and column 15, line 20 and on. This meets both the requirements of claims 5 and 6.

Particular attention is drawn to column 8, lines 35 and on, which teach blends of different silicon modified polyamides. This meets the requirement of “a different polyamide material” since the silicon modified polyamide is blended with a different silicon modified polyamide. In this manner claims 1, 5 and 6 are met by the teachings in Barr et al.

4. Claims 1 to 3, 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Veith.

Veith teaches polysiloxane-polyamide block copolymers. See Table 1 which shows a blend of a diblock (a polysiloxane-polyamide block copolymer) and Nylon-6. This anticipates claims 1 to 4.

Art Unit: 1712

While patentees need not teach the requirement that the material be useful in oral care products, the Examiner notes that the top of column 3 discloses good biocompatibility for this composition.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4 and 9 to 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Veith.

For claim 4, the Examiner notes that patentees use Nylon-6 as the blend-polyamide. However the skilled artisan would have readily recognized that the benefits and properties associated with the polysiloxane polyamide and Nylon-6 blend would likewise be found in a polysiloxane polyamide blend with other nylon polyamides. Thus the skilled artisan would have realized that one could use Nylon 6,6 in place of the Nylon-6 shown by Veith in an effort to obtain comparable results, due to the structural similarity of both nylon polyamides. Note for instance that column 3, line 21, refers to both nylon 6 and nylon 6,6 as comparable polyamides while line 33 teaches using the block copolymers as additives for homopolyamides in general.

For claims 9 to 19, the Examiner relies in part on the teachings in applicants' specification for the obviousness rejection. Under the Background of the Invention applicants admit that polyamides are known to be useful in the preparation of oral care products such as those found in claims 9 to 19. With this in mind, note the teachings on column 3, lines 26 and on, which teaches that the polysiloxane polyamides copolymers can be used as additives in polyamides in an effort to improve various physical properties. This suggests using the copolymer in fibers and biomedicine uses.

Art Unit: 1712

Taking the knowledge that it is known in the art to form various oral care compositions with polyamides, one having ordinary skill in the art would have been motivated to use the polysiloxaneamide copolymer/polyamide blends in Veith in place of the polyamides with an expectation of obtaining the known benefits and properties thereof, such as improvement in toughness and thermal stability.

7. Claims 1 to 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barr et al. in view of Ross et al.

The teachings in Barr et al. were noted above. In short, this reference teaches a polysiloxane polyamide meeting the particular requirements of claim 6. This is used as a gelling agent in cosmetic compositions.

Ross et al. teach cosmetic compositions that contain a polyamide gelling agent. Column 14, line 46, teaches that this can be nylon 6,6 or nylon 6.

It is prima facie obvious to combine two compositions, each of which is taught by prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose. In re Kerkhoven 205 USPQ 1069. The idea for combining said compositions flows logically from their having been individually taught in the prior art. With this in mind, one having ordinary skill in the art would have found a combination of a polyamide gelling agent such as those taught in Ross et al. with a polysiloxane polyamide gelling agent such as that taught in Barr et al. to have been obvious. This is true particularly in view of the teachings on column 15, lines 43 to 45, of Barr et al. which states that the polysiloxane polyamide gelling agent therein can be used in admixture with other conventional gelling agents. In this manner these claims are rendered obvious.

8. Petroff et al. and EP 269 833 are cited as being of general interest. Petroff et al. is similar to Barr et al. in that it teaches a blend of different polysiloxane polyamides. The abstract of EP 269 833 teaches a blend of polysiloxane polyamides with polyamides. Lin et al. does not qualify as prior art against the instant


Art Unit: 1712

claims. Ward et al. teach polysiloxane-poly lactone block copolymers which are miscible with nylon.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday to Wednesday and Friday, 10am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Margaret G. Moore
Primary Examiner
Art Unit 1712

mgm
2/1/06